# City of Lansing MS4 NPDES Application Attachment F

# Post-Construction Stormwater Runoff Program

#### Response to Application Question #33

As stated in Attachment B, the Lansing Dept. of Public Service is coordinating efforts with the City's Planning Office to update several sections of its codified ordinances, including several revisions to better comport with MS4 program goals and requirements. These ordinance revisions will include provisions to require compliance with MS4 Program criteria for water quality treatment and channel protection.

Again, this process for ordinance revision includes efforts to revise many sections of the City's codified ordinances, including several sections of the City's Planning and Zoning Code. Of note, the City's Planning and Zoning Code include the ordinances applicable to site plan submittal and approval, which will facilitate mandating compliance with the MS4 program's Post-Construction Stormwater Controls for New Development and Redevelopment. Including ultimate City Council approval of these ordinance revisions, the process is expected to take twelve (12) to eighteen (18) months.

Having stated the above, it's important to note that, through use of existing ordinances, the City is currently achieving full implementation of its Post-construction Stormwater Runoff Program. City Ordinance 1242.05. "Contents of site plans", states that:

This ordinance allows the City to review and approve all aspects of the design stormwater facilities and allows the City to require those controls deemed appropriate, including compliance with criteria for water quality treatment and channel protection. Further, and more importantly, City Ordinance 1242.07. "Site plan approval standards", states that:

"Prior to approving a site plan, the Planning Office, shall require that the following standards be satisfied. If these standards and the other requirements in this section and other applicable ordinances are met, the site plan shall be approved. ...... Storm water detention, retention, transport, and drainage facilities shall, insomuch as feasible, be designed to use or enhance the natural storm water system on-site, including the storage and filtering capacity of wetlands, watercourses, and water bodies, and/or the infiltration capability of the natural landscape. Storm water facilities shall be designed so as to minimize flooding or the potential for pollution of surface or groundwater, on-site or off-site" (emphasis added to key language).

Consistent with the channel protection criteria, this ordinance allows the City to require on-site retention and to require that design of site plans utilize "the infiltration capability of the natural landscape. Of course, this ordinance also requires design to "to minimize flooding or the potential for pollution of surface or groundwater, on-site or off-site".

Regarding "public projects, including projects where the applicant is the developer", it's important to note that the site plan approval process DOES apply to ALL projects on a property parcel / "on-site" regardless of whether the parcel is City-owned. In addition, for projects within the public right-of-way (ROW), the same engineers that perform site-plan review have been educated that requirements for Post-Construction Controls for New Development and

# **Attachment F (continued)**

## Response to Application Question #33 (continued)

Redevelopment do apply and that these staff are required to assure compliance with these requirements in the final design of construction projects within public ROW. To further assure that all affected parties (i.e., City staff, developers, site plan designers & engineers, etc.) are provided with a process for design and review of the Post-Construction Controls, the City's "Stormwater Management Policies and Procedures Manual" includes a "Stormwater Management Checklist" that defines the step-by-step approach. A copy of the Policies and Procedures Manual is attached for information.

As stated in herein, the City will be revising existing ordinance(s) or creating a new ordinance to specifically require that design of any new development project or redevelopment project to meet MS4 Program water quality treatment and channel protection criteria. However, it should be noted that the City is currently using the two cited ordinances to fully implement the DEQ's requirements for Post-Construction Controls for New Development and Redevelopment. To date, there have been no challenges to these requirements based upon the authority created by these ordinances.

## Response to Application Question #34

The current ordinances referenced in the response to question #33 do not specify a threshold land area whereby requirements apply. It should be noted that, for purposes of consistency in reviewing the approvability of projects within the City, the City's approach to implementing requirements for Post-Construction Controls utilizes a smaller, more stringent value for disturbed land area; 1,000 square feet of increased impervious area. This requirement for application of Post-Construction Controls for New Development and Redevelopment is indicated on page 1 of the attached City of Lansing "Stormwater Management Design Manual", a copy of which is included herein with this attachment.

When the associated City ordinance is revised, it will utilize the 1,000 square feet of increased impervious area as the threshold for requiring compliance with Post-Construction Controls. This value will result in application of these requirements to the vast range of projects that would be conducted within the City.

#### Response to Application Question #37

As stated herein, the existing ordinances do not currently specify treatment and/or design criteria. Further, when the City's associated ordinance is revised, the preferred approach is to not list specific design criteria in the ordinance language, because, if it becomes necessary to adjust design criteria to meet future DEQ requirements, this would in-turn necessitate ordinance revision, which is a resource intensive task.

The approach discussed with Christe Alwin, which she tentatively approved, is to revise the ordinance to reference compliance with the City's "Stormwater Management Design Manual". The Design Manual will always include the specific required design criteria and this approach would allow the design criteria to be adjusted based upon need without necessitating ordinance revision.

Regarding the design criteria the City is utilizing to implement this program, this design criteria is contained in Table 1 of the City's Stormwater Management Design Manual. As indicated, the City is requiring that runoff from the 90% non-exceedance storm be treated. In certain cases, the City <u>may</u> approve use of the approach to treat a certain depth of runoff from the entire site and this depth would be ½-inch of runoff from the entire site.

# **Attachment F (continued)**

### Response to Application Question #39

As indicated in the Design Manual, the City's definition of "water quality treatment" (see page 31) specifies removal of "total suspended solids such that the effluent has a maximum concentration of 80 mg/L."

## Response to Application Question #42 AND Question #54

As indicated in City Standard Operating Procedure Series 400 (see Attachment C, pgs. IV-1 through IV-2), staff reviewing site plans are required to assure that the design of stormwater facilities comply with the Design Manual, which requires compliance with DEQ channel protection criteria. In addition, staff reviewing site plans (and all entities generally) are required to assure that stormwater control facilities and the associated management plan are in conformance with the Stormwater Management Policies and Procedures Manual and it's Stormwater Management Checklist.

To aid in the design and review of stormwater control facilities, the City has developed a design spreadsheet for design of BMPs to achieve water quality treatment and channel protection criteria. This spreadsheet facilitates the design of compliant BMPs and aids staff in reviewing said BMPs. The use of this spreadsheet is not required for use in site plan submittal, but it is encouraged. In any event, all design submittals are reviewed for compliance with the MS4 Program's Post-Construction Stormwater Controls for New Development and Redevelopment.

#### Response to Application Questions #56 through #58

As indicated in City Standard Operating Procedure Series 400 (see Attachment C, pgs. IV-1 through IV-2), staff reviewing site plans are required to assure that the design of stormwater facilities comply with the Design Manual, which requires compliance with DEQ channel protection criteria. Regarding "long-term operation and maintenance of BMPs", the City's Stormwater Management Policies and Procedures Manual (that all entities must comply with) requires an Operation & Maintenance Plan has developed a template for "Stormwater Control Facility Maintenance Agreements". To further support this requirement, the City has developed a template for "Stormwater Control Facility Maintenance Agreements". A copy of this template is attached for information.

The City will require full execution of this maintenance agreement prior to approval of a site plan. All site plan review checklists are currently being updated to require this action, but all staff have been advised of this new requirement.